Lat 40.21799 Lon -122.27612

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Subject: Douglas-fir Tussock Moth Pheromone Detection Survey
1998 Report (NE99-1)

To: Forest Supervisors: Eldorado, Inyo, Lassen, Plumas, Modoc, Sierra, Stanislaus, Sequoia and Tahoe National Forests and the Lake Tahoe Basin Management Unit

Enclosed are the results of the 1998 cooperative Douglas-fir tussock moth (DFTM) pheromone detection survey. Average trap catches for 1998 showed increases for several plots compared to 1997 catches (Table 1.). Data were collected for 159 plots (5 traps/plot) during 1998. Of these, 114 plots (72%) had fewer than an average of 25 males per trap, the remaining plots averaged 25 or more moths per trap. For several plots this is a upward trend from average counts recorded in 1997. Plots which averaged >25 moths per trap for 1998 were located on the following Ranger Districts: Georgetown and Placerville on the Eldorado NF, Downieville and Nevada City on the Tahoe NF, Mt. Hough, Plumas NF and Almanor and Eagle Lake on the Lassen NF, Big Valley, Modoc National Forest, Mariposa on the Sierra and Greenhorn and Hume Lake on the Sequoia National Forest. In addition to these plots monitored on National Forest lands there were 5 plots monitored by the California Department of Forestry that averaged >25 moths per trap.

Increases and declines in trap counts are very common with DFTM populations. The DFTM outbreak on the Sequoia/Kings Canyon National Parks and the Hume Lake Ranger District, Sequoia National Forest, that was detected in 1997 is continuing and has caused moderate to heavy defoliation of white fir over 3,000 to 5,000 acres. Although significant activity by DFTM is not anticipated within other areas monitored by the plot system during 1999, field going personnel are urged to continue to monitor for evidence of feeding and defoliation on white fir throughout the susceptible host type this summer and fall. In addition, Forest Pest Management will continue monitoring other life stages and adult males in established monitoring sites and in the areas where DFTM activity exceeded an average of 25 males/trap. Ranger Districts may want to consider establishing additional pheromone plots in areas of susceptible host type.

Sufficient trapping materials have been ordered for the detection trapping plots for 1999. They will be distributed to cooperators in June or July of this year. Please direct any questions and/or observations of feeding or defoliation to Sheri Smith (530-252-6667) or John Wenz at (209-532-3671). Updates on population monitoring will be distributed to land managers as needed.

Sheri Lee Smith
Entomologist, Forest Pest Management
NE CA Shared Service Area

Enclosure

cc: Jesse Rios, CDF&FP, Sacramento
Don Owen, CDF&FP, Redding
Dan Marlatt, BLM, Susanville
FPM- Regional Office
FPM - Shasta-Trinity NF
FPM - Stanislaus NF

Table 1.

NUMBER OF DOUGLAS-FIR TUSSOCK MOTH PHEROMONE DETECTION SURVEY PLOTS BY TRAP CATCH 1979-1998

Year	Total Number Plots	NUMBER OF PLOTS WITH AN AVERAGE MOTH CATCH PER TRAP OF:													
		0<10	10<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	60<65	65<70	70<75	75+
1979	102	97	2	1	1	0	1	0	0	0	0	0	0	0	0
	100%	95%	2%	1%	1%		1%								
1980	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0
	100%	100%													
1981	93	78	10	4	1	0	0	0	0	0	0	0	0	0	0
	100%	84%	10%	4%	2%										
1982	95	93	1	0	1	0	0	0	0	0	0	0	0	0	0
	100%	98%	1%		1%										
1983	98	87	6	1	1	3	0	0	0	0	0	0	0	0	0
	100%	89%	6%	1%	1%	3%									
1984	111	51	18	11	5	7	8	4	3	4	0	0	0	0	0
	100%	46%	16%	10%	4%	6%	7%	4%	3%	4%					
1985	105	58	14	4	7	6	5	1	2	4	1	2	0	1	0
	100%	55%	13%	4%	6%	6%	5%	1%	2%	4%	1%	2%		1%	
1986	107	64	16	4	8	6	1	3	0	1	0	1	1	1	1
	100%	60%	15%	3%	7%	6%	1%	3%		1%		1%	1%	1%	1%
1987	108	80	15	4	2	1	1	3	0	1	0	0	1	0	0
	100%	74%	14%	4%	2%	1%	1%	2%		1%			1%		
1988	124	106	9	3	3	0	2	1	0	0	0	0	0	0	0
	100%	86%	7%	2%	2%		2%	1%							
1989	130	129	1	0	0	0	0	0	0	0	0	0	0	0	0
	100%	99%	1%												
1990	138	135	1	0	1	1	0	0	0	0	0	0	0	0	0
	100%	97%	1%		1%	1%									
1991	143	135	4	1	0	0	2	1	0	0	0	0	0	0	0
	100%	94%	3%	1%			1%	1%							
1992	164	156	3	0	2	1	0	0	0	0	1	0	1	0	0
	100%	95%	1%		1%	1%					1%		1%		
1993	143	135	8	0	0	0	0	0	0	0	0	0	0	0	0
	100%	94%	6%												
1994	151	139	11	1	0	0	0	0	0	0	0	0	0	0	0
	100%	92%	7%	1%											
1995	158	77	35	13	16	7	7	3	0	0	0	0	0	0	0
	100%	49%	22%	8%	10%	4.5%	4.5%	2%							
1996	149	33	26	16	^8	7	12	9	5	8	6	8	5	1	5
	100%	22%	17%	11%	6%	4%	8%	6%	3%	6%	4%	6%	3%	1%	3%
1997	142	88	27	10	9	4	3			1					
	100%	62%	19%	7%	6%	3%	2%			<1%					
1998	159	81	22	11	9	6	3	10	7	5	2	1	1	1	0
	100%	51%	14%	7%	6%	3%	2%	6%	4%	3%	1%	<1%	<1%	<1%	